

SKYJACKER

SUSPENSIONS

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Jeep Wrangler JL Rubicon & Non-Rubicon Models 2-Door & 4-Door, Gas & Diesel 4.5"-6" Rear Coilover Kit Installation Instructions

Required Tools List:

- SAE Sockets \ Wrenches (5/16", 9/16" & 5/8")
- Metric Hex Key & Sockets \ Wrenches (6mm Hex Key, 8mm, 10mm, 13mm, 16mm, 18mm, 21mm & 22mm)
- 5/16" & 7/16" Drill Bits
- Plastic Fastener Clip Removal Tool
- Drill
- Center Punch
- Hammer
- Safety Glasses
- Jack Stands
- Wheel Chock
- Floor Jack
- Paint Marker
- Measuring Tape
- Torque Wrench



Before beginning installation, read these instructions & enclosed driver's WARNING NOTICE thoroughly & completely. Also affix WARNING decal in passenger compartment in clear view of all occupants. Please refer to Parts List to insure that all parts & hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain needed items. If you have any questions or reservations about installing this product, contact SKYJACKER® Technical Assistance at 318-388-0816.

Please Record Important Measurement Information Below for Reference.

It Is Very Helpful on Determining an Accurate Achieved Lift Height Measurement.

Make sure you park vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from factory, but is usually not noticed until a lift kit has been installed which makes difference more visible. Using a measuring tape, measure front & rear (both sides) from ground up to center of fender opening above axle.

Driver Side Front: _____ / _____
BEFORE / AFTER

Passenger Side Front: _____ / _____
BEFORE / AFTER

Driver Side Rear: _____ / _____
BEFORE / AFTER

Passenger Side Rear: _____ / _____
BEFORE / AFTER

Important Notes:

- Does NOT Fit Jeep Gladiator JT.
- If Larger Tires (10% More Than OEM Diameter) Are Installed, Speedometer Recalibration Will Be Necessary. Contact Your Local JEEP Dealer or an Authorized Skyjacker® Dealer for Details.
- After Installation, a Qualified Alignment Facility Is Required to Align Vehicle to OEM Specifications.

- In Event that a Different Coil Spring Rate Option Is Needed Due to Custom Modifications, Extra Weight, Etc, Please Contact SKYJACKER® Technical Assistance at 318-388-0816.
- Adjustable Rear Lower Control Arms Are **Required**. # JLL24R-SX Includes Johnny Joints.
- Adjustable Rear Upper Control Arms Are **Recommended**. # JLULR26-SX Includes Johnny Joints.
- A Replacement Dual Cardan CV Style Rear Driveshaft is **Required** for 2-Door Models. **Recommended** for 4-Door Models.
- Wheel Back Spacing of 4.5" Or Less Is **Recommended**.

Jeep Wrangler JL Optional Coilover Up-Grades



**Front Air Bump Stop Kit
Part # JLLSAB**



**ADX Adventure Series Coilover Kit (Front)
3.5" - 6" Lift Coilover - Part # JL36FLS
3.5" - 6" Lift Brackets - Part # JL36FLSB**



Adjustable Front Track Bar - Part # JLFTBA18



Adjustable Rear Track Bar - Part # JLRTBA18

Component Box Breakdown:

Part # JL36ER

Item #	Description	Qty
SKY2031-PR	COILOVER SHOCK, PAIR, L & R	1
2.5X12X250	SPRING, 2.5 ID \ 12 H \ 250 RATE	2
2.5X14X250	SPRING, 2.5 ID \ 14 H \ 250 RATE	2
LSCOWRH-S	SPANNER WRENCH, COILOVER	1

Part # JL36RLS

Item #	Description	Qty
SKY2031-PR	COILOVER SHOCK, PAIR, L & R	1
2.5X12X200	SPRING, 2.5 ID \ 12 H \ 200 RATE	2
2.5X14X250	SPRING, 2.5 ID \ 14 H \ 250 RATE	2
LSCOWRH-S	SPANNER WRENCH, COILOVER	1

Part # JL36RLSB

Item #	Description	Qty
JLLSBORDU-B	SHOCK BRKT, RR DR UPPER BRKT	1
JLLSBORDL-1	SHOCK BRKT, RR DR LOWER INNER	1
JLLSBORDL-2	SHOCK BRKT, RR DR LOWER OUTER	1
JLLSBORPU-B	SHOCK BRKT, RR PA UPPER BRKT	1
JLLSBORPL-1	SHOCK BRKT, RR PA LOWER INNER	1
JLLSBORPL-2	SHOCK BRKT, RR PA LOWER OUTER	1
JKLSBORRD-B	REMOTE RESERVOIR BRKT, DR	1
JKLSBORRP-B	REMOTE RESERVOIR BRKT, PA	1
HB-JLLSBORL	HDWR BAG: RR SHOCK LOWER BRKT	1
HB-JLLSBORU	HDWR BAG: RR SHOCK UPPER BRKT	1

Hardware Bag Breakdown:

Part # HB-JLLSBORL

Item #	Description	Qty
14X120MMB	14MM X 120MM - 2.0 TP BOLT	2
14MMN	14MM NYLON INSERT LOCK NUT	2
716X114FTB	7/16 X 1-1/4 FINE THREAD BOLT	2
716SAEW	7/16 SAE WASHER	4
716FTN	7/16 FINE THREAD N/I LOCK NUT	2
916SAEW	9/16 SAE WASHER	4

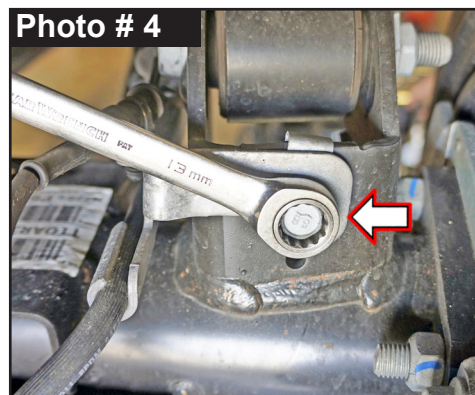
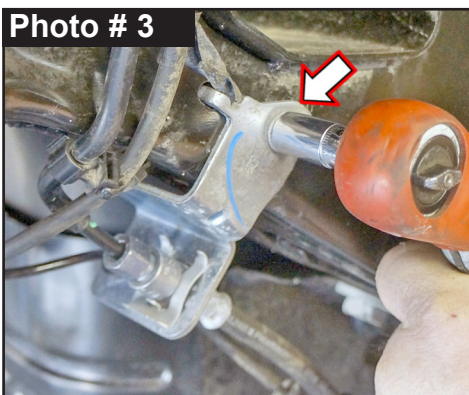
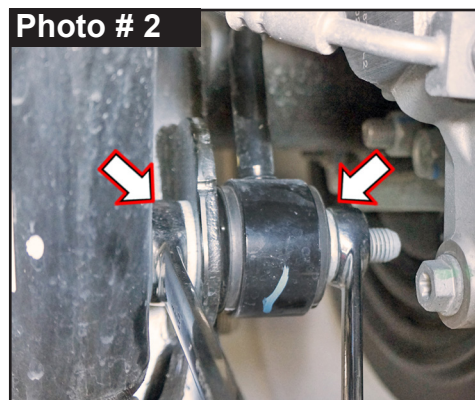
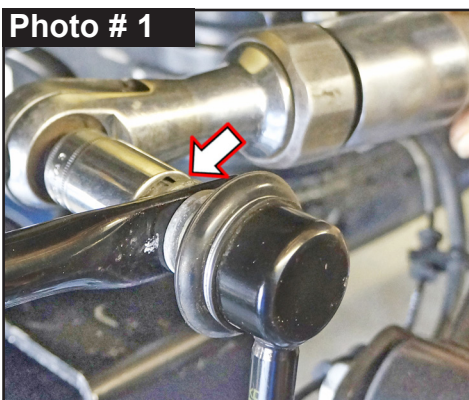
Part # HB-JLLSBORU

Item #	Description	Qty
CS1495	CRUSH SLEEVE / 1.495 LENGTH	2
38X1TCFB	3/8 X 1 THRD-CUTTER FLG BOLT	16

ATTENTION: Parts Shown in Bronze are for Picture Clarification Only. Skyjacker Coil Springs & Metal Brackets Are Powder Coated Black.

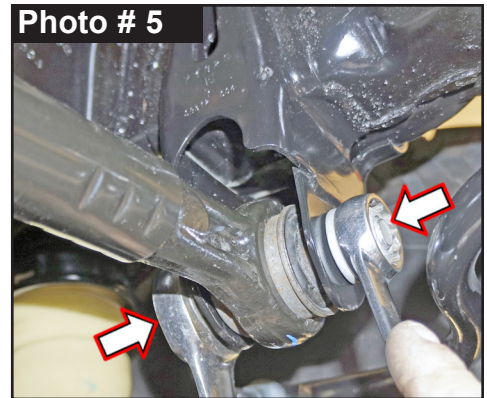
Rear Installation: Note: Save all factory components and hardware for reuse, unless noted.

1. Chock front tires \ wheels. Raise rear of vehicle & support frame rails using jack stands at indicated lift points in OEM service manual. **Tech Note:** OEM rear lower control arms will need to move freely during this installation.
2. Remove rear tires \ wheels using a 22mm socket.
3. Remove OEM rear sway bar end links using a 6mm hex key socket \ wrench & 18mm socket \ wrench. (Photo # 1 & # 2)
4. Disconnect OEM rear brake line bracket from frame using a 10mm socket \ wrench. (Photo # 3)



Disconnect OEM rear brake line bracket from rear axle at upper control arm mount on each side using a 13mm socket \ wrench. (Photo # 4)

5. Disconnect OEM rear track bar from passenger side upper frame mount using a 21mm socket \wrench. (Photo # 5)



6. **RUBICON Models:** Rear locker must be disconnected so wiring connectors are not over-extended. On rear axle, unplug locker wiring harness from side of center differential housing.

Follow wiring harness up & unclip wiring harness clamps from emergency brake cable.

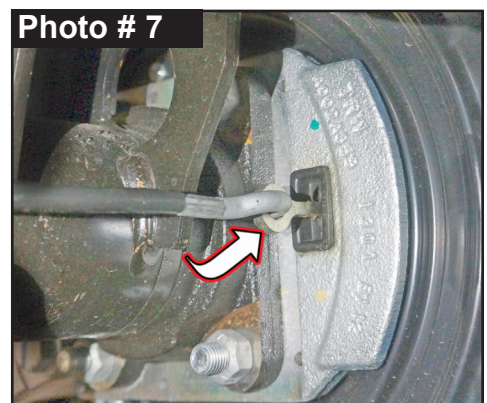
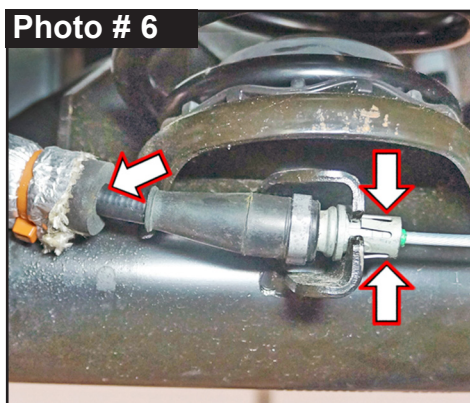
Continue up wiring harness & unclip two (2) wiring harness clips from driver side inner frame rail above axle using a plastic fastener clip removal tool.

7. Locate two (2) OEM emergency brake cables on front of rear axle. They run down from body to center of axle out to each driver & passenger brake housing.

Hold tension on inward cable & pinch ears of aluminum fitting to release it from axle mount using pliers. (Photo # 6)

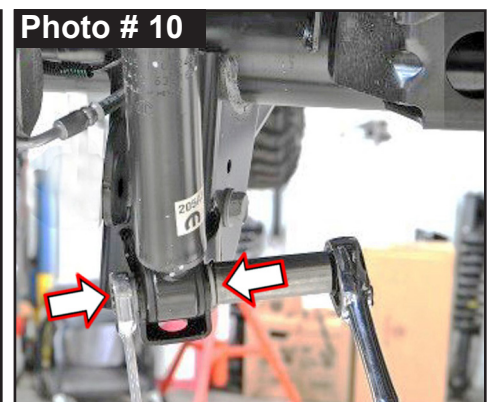
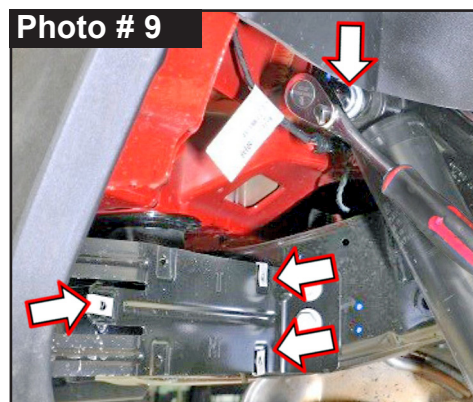
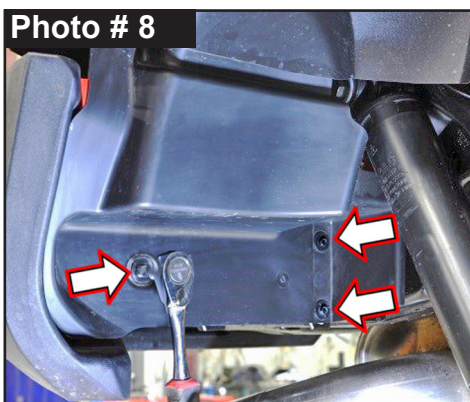
Remove e-brake cable. Disconnect cable hook-end from ring on brake housing. (Photo # 7)

Repeat process on opposite side of vehicle.



8. In order to gain access to OEM rear upper shock mounting bolts, remove three (3) OEM bolts rear bumper inner fender liner using a 8mm socket \wrench. (Photo # 8) Retain hardware.

Remove OEM rear shocks using a 18mm socket \wrench. (Photo # 9 & # 10) **Note:** OEM upper shock mount has nut attached to shock mount.



9. While checking for appropriate slack in electric locker lines, ABS lines, brake lines, differential vent hose & etc, lower rear axle. Remove OEM rear coil springs & OEM rear upper coil spring isolator.

Note: Perform Steps 10-22 on One Side at a Time.

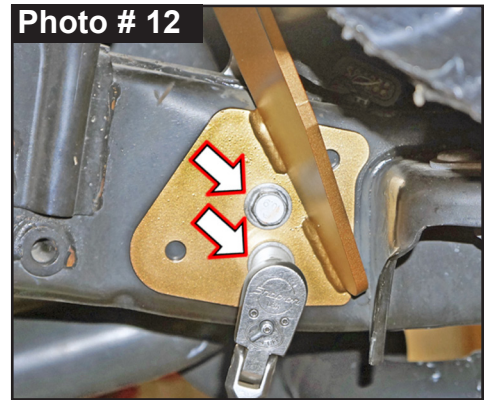
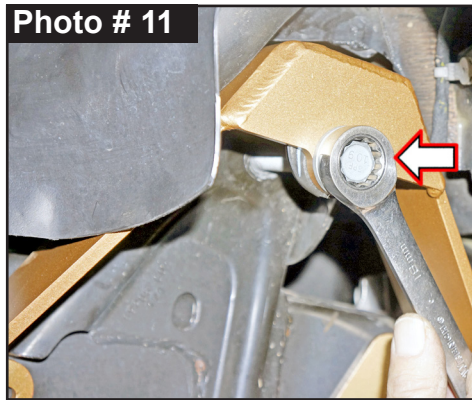
10. Skyjacker Upper Shock Brackets Are Side Specific:

JLLSBORDU-B Driver Side & # JLLSBORPU-B Passenger Side

Remove two (2) OEM bolts from frame rail (toward body mount) using a 16mm socket \ wrench.

(Photos # 12)

Attach appropriate Skyjacker Upper Shock Bracket to upper OEM shock bracket \ frame mount with OEM hardware using a 18mm socket \ wrench. (Photos # 11) Secure, but **Do Not Completely Tighten** at this time.



Attach Skyjacker Bracket to OEM holes in frame mount with OEM hardware using a 16mm socket \ wrench. (Photos # 12) Secure, but **Do Not Completely Tighten** at this time.

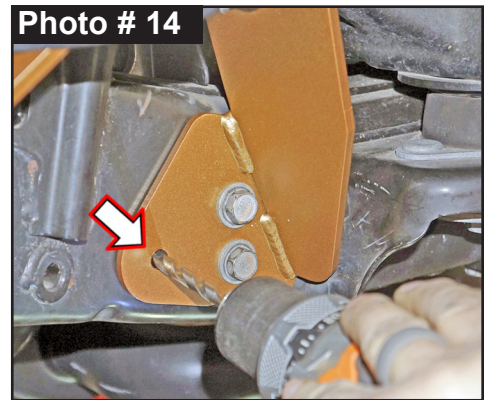
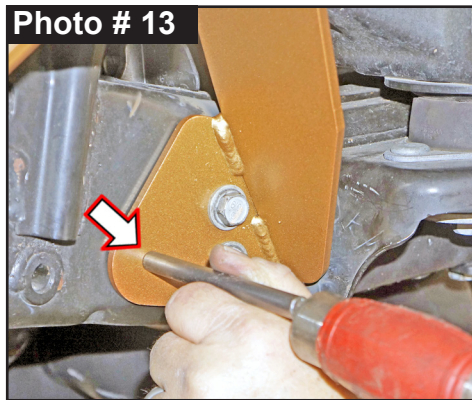
11. Use Skyjacker Bracket as a guide for remaining six (6) mounting holes to OEM frame.

Mark & center punch each mounting hole.

(Photos # 13 & # 15)

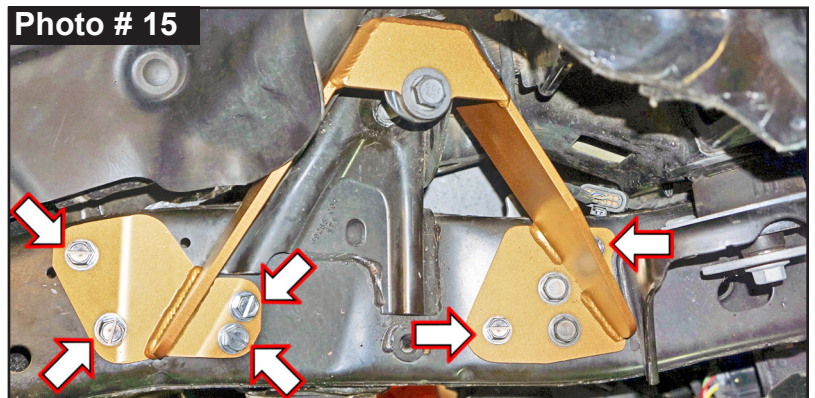
Drill out each mounting hole with a 5/16" drill bit.

(Photo # 14)



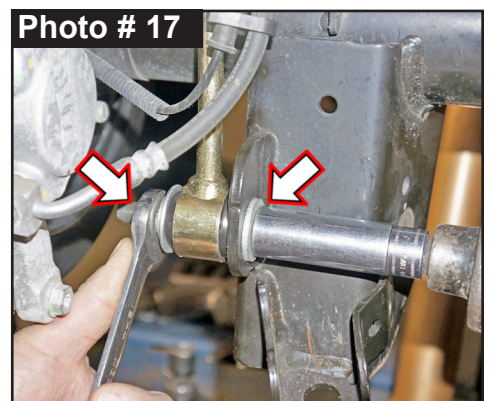
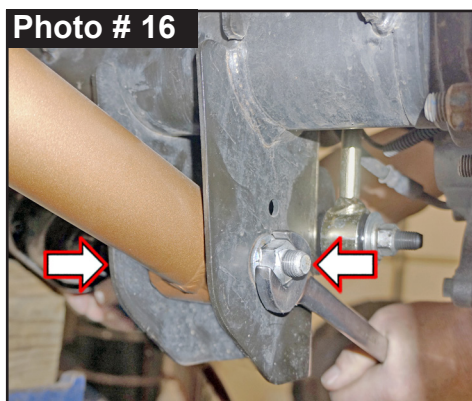
Note: Prior to drilling, check behind surface area being worked on for any wires, brake lines, fuel lines, hoses, etc that could be damaged.

12. Attach six (6) Skyjacker Bracket to drilled mounting holes with supplied 3/8" x 1" Thread Cutter Flange Bolts using a 9/16" socket \ wrench. (Photo # 15) Torque 30 ft-lbs.



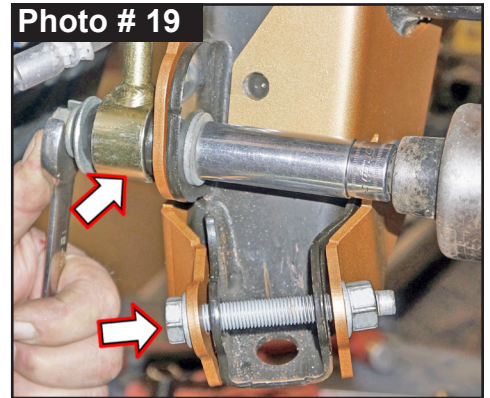
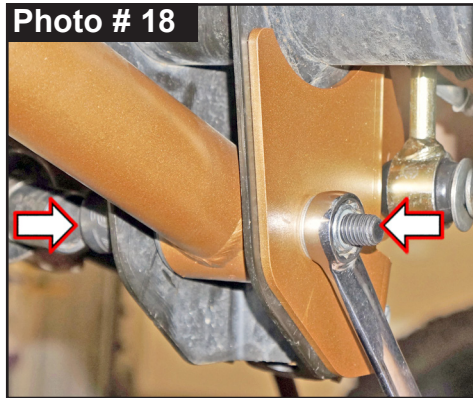
13. Disconnect rear Lower Control Arm (LCA) from rear axle mount using a 21mm socket \ wrench. (Photo # 16)

Disconnect Skyjacker Rear Sway Bar lower end link using a 18mm socket \ wrench. (Photo # 17)



14. Skyjacker Lower Shock Brackets Are Side Specific & Position Specific:
 # JLLSBORDL-2 Driver Side Outer & # JLLSBORPL-2 Passenger Side Outer
 # JLLSBORDL-1 Driver Side Inner & # JLLSBORPL-1 Passenger Side Inner

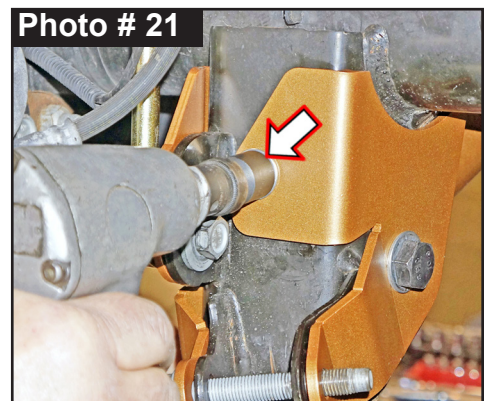
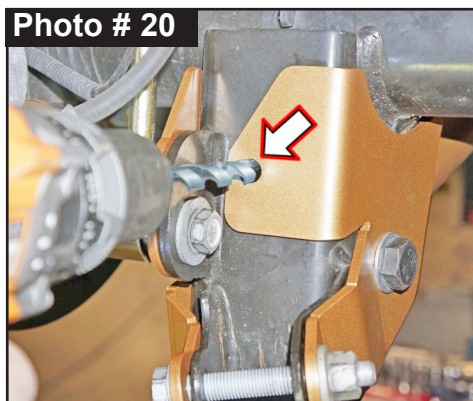
Attach appropriate Skyjacker brackets to OEM LCA mount. Insert supplied 14mm x 120mm Bolt with 9/16" SAE Washer through Skyjacker bracket \ OEM mount & LCA from inside-to-outside. Attach with 9/16" SAE Washer & 14mm Nylon Insert Lock Nut on outside using a using a 22mm socket \ wrench. (Photo # 18) Secure, but **Do Not Completely Tighten** at this time.



Insert OEM rear shock bolt through Skyjacker bracket \ OEM shock mount using a 18mm socket \ wrench. (Photo # 19) Attach Skyjacker Rear Sway Bar lower end link to Skyjacker bracket \ OEM mount using a 18mm socket \ wrench. Secure, but **Do Not Completely Tighten**.

15. Use Skyjacker Bracket as a guide for one (1) mounting hole to OEM shock bracket.

Mark & center punch mounting hole. Drill out mounting hole with a 7/16" drill bit. (Photo # 20)



16. Attach Skyjacker Bracket to drilled mounting hole with supplied 7/16" x 1-1/4" Bolt with 7/16" SAE Washer through Skyjacker bracket \ OEM shock mount from outside-to-inside.

Attach with 7/16" SAE Washer & 7/16" Nylon Insert Lock Nut on outside using a using a 5/8" socket \ wrench. (Photo # 21) Torque 60 ft-lbs.

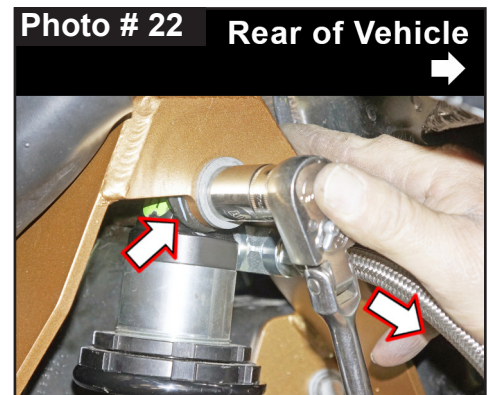
17. Remove OEM hardware from Skyjacker Upper Shock Bracket using a 18mm socket \ wrench.

Skyjacker Rear Coilover Shocks Are Not Side Specific. Installation Direction \ Position Is Side Specific. **Tech Note:** Coilover Shock Fitting, Reservoir Hose & Remote Reservoir Must Point Toward Rear of Vehicle.

Install Skyjacker Coilover Shock with one (1) supplied (shorter) .492" Long metal shock spacers \ bushings on each side of upper shock mount.

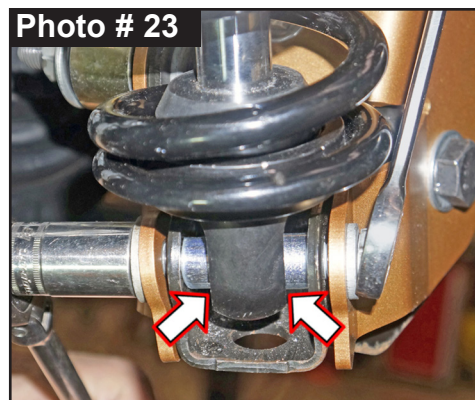
Place supplied 1-1/2" Crush Sleeve inside of Skyjacker Bracket against OEM frame. Attach Coilover Shock to bracket \ OEM frame with OEM hardware using a 18mm socket \ wrench. (Photo # 22)

Secure, but **Do Not Completely Tighten** at this time.



18. Install Skyjacker Coilover Shock with one (1) supplied (longer) .642" Long metal shock spacers \ bushings on each side of lower shock mount.

Attach Coilover Shock to bracket \ OEM frame with OEM hardware using a 18mm socket \ wrench. (Photo # 23) Secure, but **Do Not Completely Tighten** at this time.



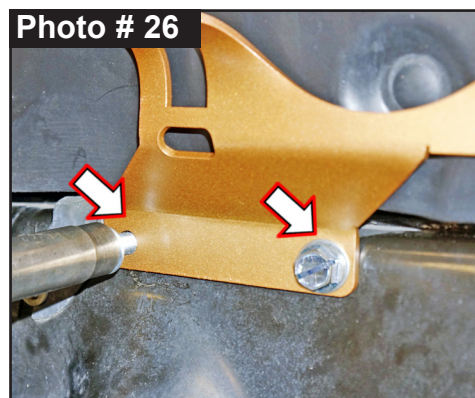
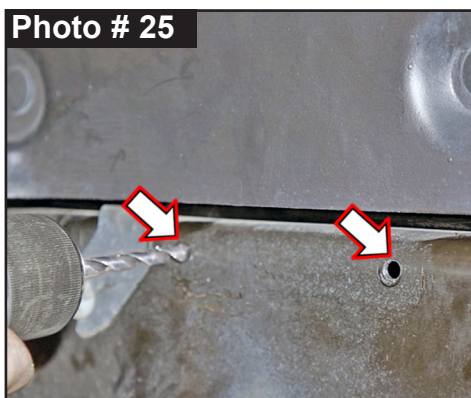
19. Skyjacker Remote Reservoir Brackets Are Side Specific:
JKLSBORRD-B Driver & # JKLSBORRP-B Passenger
Position appropriate Skyjacker Remote Reservoir Bracket onto OEM frame rail (above OEM bump stop mount). (Photo # 28)

Use Skyjacker Bracket as a guide for two (2) mounting holes. Mark & center punch mounting holes. (Photo # 24)

20. Using your punched marks as a guide, drill out two (2) mounting holes with a 5/16" drill bit. (Photo # 25) **Note:** Prior to drilling, check behind surface area being worked on for any wires, brake lines, fuel lines, hoses, etc.

File smooth any burrs or sharp edges on surface area, then paint or undercoat all exposed metal surface areas.

21. Attach Skyjacker Bracket to drilled mounting holes with supplied 3/8" x 1" Thread Cutter Flange Bolts using a 9/16" socket \ wrench. (Photo # 26) Torque 30 ft-lbs.



22. Place Skyjacker remote reservoir into cradle of reservoir bracket. Attach reservoir to bracket with two (2) supplied # 40 Hose Clamps. **Note:** Route clamps around over top of bracket & back through bracket cut-out then around reservoir.

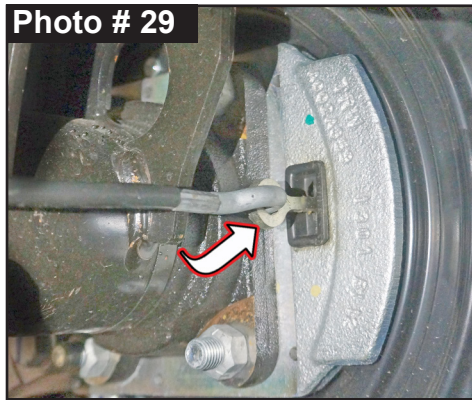
Attach using a standard screwdriver or 5/16" socket \ wrench. (Photo # 27) Torque 180 in-lbs.

Tech Note: You can position or roll hose clamp rearward to hide bolts from view. (Photo # 28)

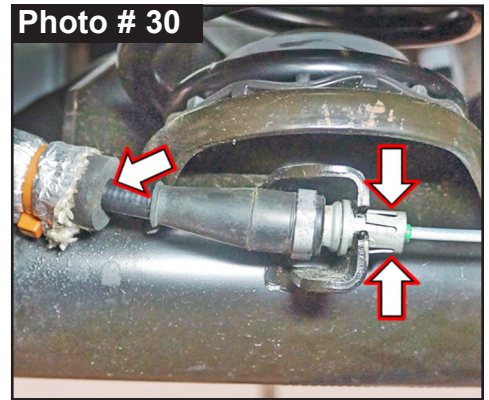


Note: Perform Steps 10-22 on Opposite Side at a this Time, Then Proceed to Step 23.

23. Run each e-brake cable down & out to appropriate driver \ passenger brake housing. Connect cable hook-end onto ring on brake housing. (Photo # 29)



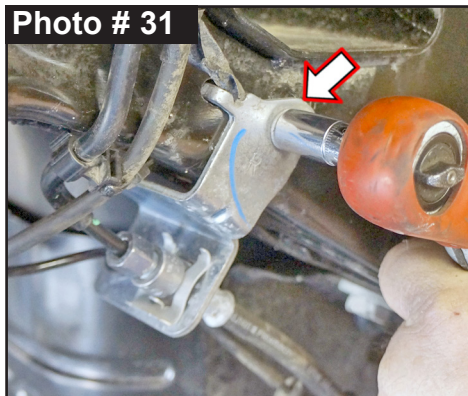
Hold tension on inward e-brake cable. Using pliers, pinch ears of aluminum fitting to attach cable to OEM axle mount.



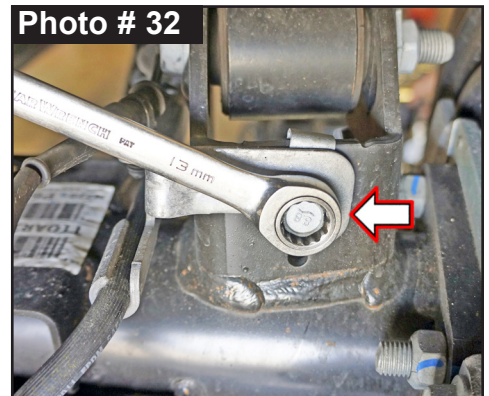
(Photo # 30)

Repeat Process on Opposite Side of Vehicle.

24. Connect OEM rear brake line bracket to frame using a 10mm socket \ wrench. (Photo # 31)



Connect OEM rear brake line bracket to rear axle at upper control arm mount on each side using a 13mm socket \ wrench.



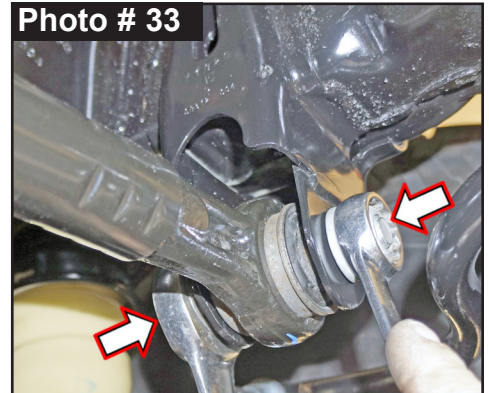
(Photo # 32)

25. Install rear bumper inner fender liner using a 8mm socket \ wrench. (Photo # 8)

Tech Note: For better clearance & a clean look, it may be necessary to slightly trim OEM rear lower fender liners around Skyjacker Upper Coilover Shock Bracket.

26. Connect OEM rear track bar to passenger side upper frame mount using a 21mm socket \ wrench. (Photo # 33)

Tech Note: It may be necessary to raise \ lower axle to align track bar bolt.



27. **RUBICON Models:** On rear axle, reconnect rear locker wiring harness to side of center differential housing.

Follow wiring harness up & re-clip wiring harness clamps to emergency brake cable.

Continue up wiring harness & re-clip two (2) wiring harness clips to driver side inner frame rail.

28. Install rear tires \ wheels using a 22mm socket. Lower vehicle to ground. Torque lugs to OEM service manual specifications.

Final Clearance Check & Torque Steps:

1. Start vehicle. Make sure there are no dash lights pertaining to suspension.
2. Jounce vehicle a couple of times. This will help suspension settle to new ride height. Cycle steering lock-to-lock & check all components for proper operation & clearances. Pay special attention to clearance between tires \ wheels & ADX Coilover Shocks & Reservoirs, control arms, brake hoses, ABS wiring, etc.

3. Rear Tighten & Torque Sequence.

OEM track bar at upper frame mount using a 21mm socket \ wrench. Torque 130 ft-lbs.

Coilover shock at lower mount using a 18mm wrench. Torque 74 ft-lbs.

Coilover shock at upper mount using a 18mm wrench. Torque 74 ft-lbs.

Skyjacker sway bar end link lower mount using a 18mm socket \ wrench. Torque 59 ft-lbs.

Skyjacker rear LCA bolts using a 22mm socket \ wrench. Torque 120 ft-lbs.

Adjusting Coilover Lift Height:

Notes: Reference your before & after measurements noted on Page 1 of these instructions.

Raise lift height by compressing Skyjacker Coilover upper coil spring. To raise vehicle height, turn coilover collars down shock body.

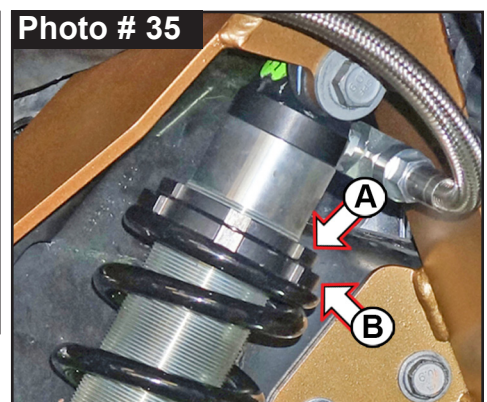
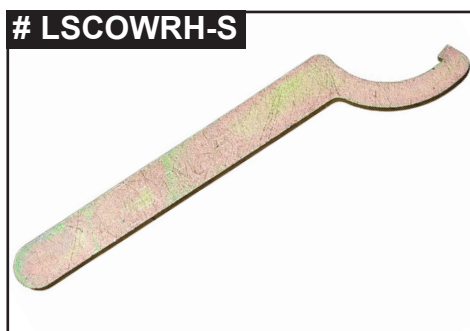
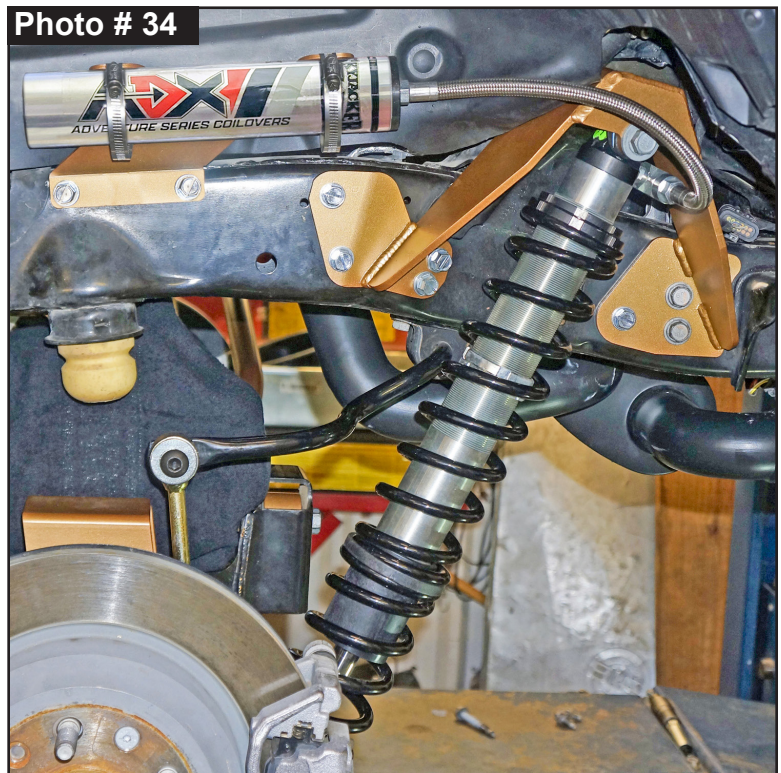
1. With vehicle on flat level ground, set emergency brake & chock front tires \ wheels. Raise rear of vehicle, support frame rails using jack stands at indicated lift points in OEM service manual.
2. Remove rear tires \ wheels using a 22mm socket. Make sure Skyjacker Coilover Shocks are fully extended with as much weight off coil springs as possible. (Photo # 34)
3. To adjust Coilovers, first unlock Upper Collar A by turning it left \ clock-wise using # LSCOWRH-S Spanner Wrench. (Photo # 35) **Tech Note:** Amount of preload \ adjustment does not directly

equal amount of lift you will achieve due to weight variances side-to-side (battery, gas tank, other aftermarket modifications, etc.). 1" of preload does not equal 1" of lift height.

Use Spanner Wrench to turn Lower Collar B right \

counter clock-wise to compress upper coil spring down. It does require a physical effort to rotate \ compress coil spring.

4. Once satisfied with your adjustments, spin Upper Collar A down against Lower Collar B. To lock, turn collar B counter-clockwise and collar A clockwise.
5. Install rear tires \ wheels using a 22mm socket. Lower vehicle to ground. Torque lugs to OEM service manual specifications.
6. Jounce vehicle a couple of times and \ or test drive. This will help suspension settle to new ride height. Check height measurements again. Fine tune side-to-side as needed.



Final Notes:

- After installation is complete, double check that all nuts & bolts are tight. Refer to following chart for proper torque specifications. (**Note:** Do not re-tighten nuts & bolts where thread lock compound was used.)
- With vehicle placed on ground, cycle steering lock to lock & inspect steering, suspension, brake lines, front & rear drivelines, fuel lines & wiring harnesses for proper operation, tightness & adequate clearance.
- Have headlights readjusted to proper settings.
- Have a qualified alignment center align vehicle to OEM specifications.
- After first 100 miles, check all hardware for proper torque & periodically thereafter.

TORQUE SPECIFICATIONS					
INCH SYSTEM			METRIC SYSTEM		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9
5/16	180 in-lbs	240 in-lbs	6MM	60 in-lbs	108 in-lbs
3/8	30 ft-lbs	35 ft-lbs	8MM	216 in-lbs	23 ft-lbs
7/16	45 ft-lbs	60 ft-lbs	10MM	32 ft-lbs	45 ft-lbs
1/2	65 ft-lbs	90 ft-lbs	12MM	55 ft-lbs	75 ft-lbs
9/16	95 ft-lbs	130 ft-lbs	14MM	85 ft-lbs	120 ft-lbs
5/8	135 ft-lbs	175 ft-lbs	16MM	130 ft-lbs	165 ft-lbs
3/4	185 ft-lbs	280 ft-lbs	18MM	170 ft-lbs	240 ft-lbs

**Above Specifications Are Not to Be Used
When Bolt Is Being Installed With a Bushing.**

Seat Belts Save Lives, Please Wear Your Seat Belt.